

March 8, 2012

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Written *Ex Parte* Presentation
WT Docket No. 07-293; IB Docket No. 95-91; IB Docket 11-109

Dear Ms. Dortch:

Sirius XM Radio Inc. (“Sirius XM”) files this *ex parte* presentation to highlight the relevance to this proceeding of the National Telecommunications and Information Administration’s (“NTIA”) recent letter to Chairman Genachowski (the “NTIA Letter”) providing NTIA’s findings on the impacts to Global Positioning System (“GPS”) services of the proposed LightSquared deployment of terrestrial operations.¹

The NTIA Letter finds “there is no practical way to mitigate” the interference that LightSquared’s proposed terrestrial network would create to GPS services.² Based on NTIA’s conclusion, the International Bureau proposed to revoke LightSquared’s waiver of the Commission’s ancillary terrestrial component (“ATC”) gating criteria and suspend LightSquared’s ATC authority.³

The NTIA Letter explained that the National Space-Based Positioning, Navigation, and Timing Systems Engineering Forum (“NPEF”) had worked with LightSquared to develop a plan to validate measurement of personal/general navigation GPS receivers.⁴ In that regard, NTIA had “directed the NPEF to use a 1 dB reduction in carrier-to-noise density to measure the base station power level that caused GPS receiver degradation.”⁵ NTIA also said that using this standard

¹ Letter from Lawrence E. Strickling, Assistant Secretary for Communications and Information, U.S. Dept. of Commerce, to Julius Genachowski, Chairman, FCC (dated Feb. 14, 2012), available at <http://apps.fcc.gov/ecfs/document/view?id=7021860324> (“NTIA February 14 Letter”).

² NTIA February 14 Letter at 1.

³ See International Bureau Invites Comment on NTIA Letter Regarding LightSquared Conditional Waiver, IB Docket No. 11-109, *Public Notice*, DA 12-214 (rel. Feb. 15, 2012).

⁴ NTIA February 14 Letter at 3.

⁵ *Id.* at 4.

complied with its earlier commitment that its recommendations in this proceeding “will be based on NTIA standard definitions and methodologies for assessing interference.”⁶

The standard that NTIA applied to assess interference from LightSquared to GPS services also provides the basis the Commission should use to evaluate the interference potential between WCS devices and satellite radio receivers. Throughout this proceeding, Sirius XM has urged the Commission to adopt an objective standard for determining an “acceptable” level of interference to satellite radio receivers due to the relaxation of WCS operating parameters. The Commission’s failure to adopt such a standard in its 2010 decision loosening the WCS rules⁷ constitutes an unexplained and unjustified reversal from its 1997 order initially adopting WCS rules, where it applied a 1.0 dB noise floor increase as the threshold for setting WCS out-of-band emissions limits.⁸

Sirius XM discussed the need for an objective interference standard in numerous filings at an earlier stage of this proceeding⁹ and also highlighted this issue in its 2010 Petition for Partial Reconsideration of the 2010 Order, saying:

The Commission should facilitate the coordination process by clearly identifying objective interference criteria. The Order referenced the definition of harmful interference in Section 2.1 of the Rules as “[i]nterference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs, or repeatedly interrupts a radiocommunication service operating in accordance with [the ITU] Radio Regulations.” However, a more detailed set of interference criteria, based on objective parameters specific to the context at hand, would be more useful to

⁶ Letter from Lawrence E. Strickling, Assistant Secretary for Communications and Information, U.S. Department of Commerce, to William Lynn, Deputy Secretary, U.S. Department of Defense and John Porcari, Deputy Secretary, U.S. Department of Transportation at 3 (dated Sept. 9, 2011) *attached to* Letter from Lawrence E. Strickling, Assistant Secretary for Communications and Information, U.S. Department of Commerce, to Julius Genachowski, Chairman, FCC (dated Sept. 13, 2011) *available at* <http://apps.fcc.gov/ecfs/document/view?id=7021708329>.

⁷ Amendment of Part 27 of the Commission’s Rules to Govern the Operation of Wireless Communications Services in the 2.3 GHz Band, WT Docket No. 07-293, IB Docket No. 95-91, GEN Docket No. 90-357, RM-8610, *Report and Order and Second Report and Order*, 25 FCC Rcd 11710, 11754, ¶ 99 (2010) (“2010 Order”).

⁸ See Amendment of the Commission’s Rules to Establish Part 27, the Wireless Communications Service (“WCS”), GN Docket No. 96-228, *Memorandum Opinion and Order*, 12 FCC Rcd 3977, 3992 ¶ 29 (1997).

⁹ See, e.g., Letter from Patrick L. Donnelly, Executive Vice President, General Counsel and Secretary, Sirius Satellite Radio Inc. and James S. Blitz, Vice President, Regulatory Counsel, XM Radio Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, Annex 1, IB Docket No. 95-91, GEN Docket No. 90-357, RM-8610 (filed Sept. 19, 2007); Letter from Robert L. Pettit, Counsel for Sirius Satellite Radio Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, Annex 1, IB Docket No. 95-91, GEN Docket No. 90-357 (filed Dec. 5, 2007).

establish rights and obligations to resolve interference. Sirius XM previously recommended a process for identifying and resolving instances of harmful interference. The Commission should revisit this proposal and prescribe such a process.¹⁰

Sirius XM reiterated this concern in its opposition to the WCS Coalition's Petition for Partial Reconsideration, explaining:

The coordination and interference mitigation processes would be greatly facilitated by adopting objective interference criteria that defines tolerable levels of outages due to interference and the corresponding interference probability models used to determine such levels.¹¹

NTIA's use of a 1 dB reduction in carrier to noise density to assess the compatibility between LightSquared's terrestrial network and GPS services re-affirms the validity of establishing a similar metric to assess interference from WCS devices to satellite radio receivers. As part of the pending reconsideration of the 2010 Order, Sirius XM urges the Commission to adopt such a metric to define permissible interference levels between these services.¹² As Sirius XM previously said, absent an objective standard to quantify and limit interference to satellite radio service from WCS devices, "there is no way to adequately assess the impact from any incremental interference conditions."¹³ If the FCC further relaxes the WCS service rules as the WCS Coalition requests, Sirius XM's customers will be required to endure an increasing likelihood of interference, impairing their ability to receive satellite radio service.

¹⁰ Sirius XM Radio Inc., Petition for Partial Reconsideration and Clarification, at 21, WT Docket No. 07-293, IB Docket No. 95-91, GEN Docket No. 90-357, RM No. 8610 (filed Sept. 1, 2010).

¹¹ Sirius XM Radio Inc., Opposition to the Petitions for Reconsideration of the WCS Coalition and AT&T Inc., at 18, WT Docket No. 07-293, IB Docket No. 95-91, GEN Docket No. 90-357, RM No. 8610 (filed Oct. 18, 2010).

¹² To the extent Sirius XM's discussion of this issue in its Petition for Partial Reconsideration did not squarely raise it in the reconsideration context, the NTIA Letter constitutes "changed circumstances" that are more than adequate to justify the Commission's consideration of the 1 dB noise floor standard in its forthcoming reconsideration order.

¹³ See Letter from James S. Blitz, Vice President, Regulatory Counsel, Sirius XM Radio Inc. and Terrence R. Smith, Corporate Vice President and Chief Engineering Office, Sirius XM Radio Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, at 3, WT Docket No. 07-293, IB Docket No. 95-91 (filed Jan. 11, 2012).

In conclusion, Sirius XM urges the Commission to adopt an interference threshold to prevent further degradation of satellite radio service from WCS devices. Such a threshold would be useful not only in the reconsideration decision, but also to assess any future requests to modify the WCS rules and to help the Commission arbitrate post-deployment interference disputes, should they arise.

Respectfully submitted,



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